

Title (en)

DEVICE FOR ATTACHING A DIP TUBE TO A FLUID CONTAINER

Title (de)

VERFAHREN ZUR ANBRINGUNG EINES STEIGROHRS AN EINEM FLÜSSIGKEITSBEHÄLTER

Title (fr)

DISPOSITIF CONÇU POUR FIXER UN TUBE PLONGEUR A UN RESERVOIR DE LIQUIDE

Publication

EP 2077916 B1 20130102 (EN)

Application

EP 07853068 A 20071101

Priority

- US 2007023096 W 20071101
- US 55627406 A 20061103
- US 93358207 A 20071101

Abstract (en)

[origin: US2008105713A1] A device for that places a fluid container in fluid communication with a sprayer is disclosed. The device includes a container adapter that allows a dip tube to be attached to the fluid container rather than the sprayer. When the sprayer is removed from the fluid container, the dip tube stays in the fluid container. Refill fluid containers may come with the container adapter and dip tube installed. When the sprayer is attached to the fluid container, the adapter seals against the sprayer allowing fluid to be pumped from the fluid container by the sprayer. A sprayer connector with geometry that matches an inner or outer shape of the adapter is attached to and/or built into the sprayer. The sprayer connector is constructed to allow easy alignment of the sprayer to the fluid container. The sprayer connector and the container adapter also provide a unique attachment geometry to insure only containers with formulae compatible to the sprayer are pumped through the sprayer.

IPC 8 full level

B05B 11/00 (2006.01); **B67D 7/58** (2010.01)

CPC (source: EP US)

B05B 11/0039 (2018.07 - US); **B05B 11/00442** (2018.07 - EP US); **B05B 11/1045** (2023.01 - EP US); **B05B 11/1057** (2023.01 - EP US)

Citation (examination)

- EP 0529256 A1 19930303 - COSTER TECNOLOGIE SPECIALI SPA [IT]
- FR 2799449 A1 20010413 - OREAL [FR]
- FR 2377946 A1 19780818 - OREAL [FR]

Cited by

WO2015081021A1; US10138110B2; US10669146B2

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